

MAS  
ED32.4:  
977-979

MASS  
ED32.4:

UMASS/AMHERST



312066 0271 3388 8



# TITLE I ANNUAL EVALUATION REPORT

FISCAL YEAR 1979

THE COMMONWEALTH  
OF MASSACHUSETTS

# THE COMMONWEALTH OF MASSACHUSETTS

---

## BOARD OF EDUCATION

Anne H. McHugh, *Chairperson*  
James L. Green, *Vice-Chairperson*

### Members

John W. Bond  
Millie Clements  
James P. Doherty  
James R. Grande  
Howard A. Greis  
Charles T. Grigsby  
Mary Ann Hardenbergh  
Armando Martinez  
Edwin M. Rossman  
Donald R. Walker

Gregory R. Anrig, *Commissioner of Education, Secretary*

### *Ex-Officio Member*

Laura B. Clausen, *Chancellor, Board of Higher Education*

## DEPARTMENT OF EDUCATION

Gregory R. Anrig, *Commissioner*  
Michael J. Daly, *Executive Deputy Commissioner*  
Frederick Stokley, *Deputy Commissioner for Program Operations*  
Max Bogart, *Associate Commissioner, Division of Curriculum and Instruction*

## BUREAU OF CURRICULUM SERVICES

Robert A. Watson, *Director*  
Joaquim Baptista, *Project Director, Title I, ESEA*

*Statistical data compiled by Richard S. Zusman, Educational Specialist  
Edited, designed and produced by Joyce E. Wu, Publications Specialist*

Produced by the Bureau of Educational Information Services  
Massachusetts Department of Education

Richard A. Gilman, *Director*  
Cynthia F. Nadreau, *Publications Coordinator*  
Susan M. Ridge, *Phototypesetter*

*Photos: Courtesy of Title I Dissemination Project, Boston, Massachusetts*

*The Massachusetts Department of Education insures equal employment, educational opportunities, affirmative action regardless of race, color, creed, national origin or sex, in compliance with Title IX, or handicap, in compliance with Section 504.*

# CONTENTS

<b>MASSACHUSETTS TITLE I BASIC STATISTICS</b>	<u>Page</u>
Participation of Massachusetts Local Educational Agencies in Title I.....	1
Allocations by County.....	2
Student Participation.....	3
Student Project Activity Areas .....	6
Types of Staff .....	7

## **NON-PUBLIC SCHOOL PARTICIPATION**

Regulations for Non-Public School Participation .....	9
Non-Public School Student Participation.....	10
Involvement of Non-Public School Representatives .....	13

## **STAFF TRAINING**

Funding of Training Programs.....	14
Professional and Non-Professional Staff Participation .....	15
Personnel Conducting Staff Training .....	17
Topics Covered in Training Program .....	18

## **COMMUNITY AND PARENT INVOLVEMENT**

Title I Parent Advisory Councils [PAC] .....	19
Non-Voting Membership of PACs .....	19

## **EFFECT ON EDUCATIONAL ACHIEVEMENT**

Overview: The Title I Evaluation and Reporting System .....	20
The Norm-Referenced Design— <i>Model A</i> .....	21
Reporting Statewide Results .....	21
Title I Impact: Achievement Test Results.....	22
• Impact of Reading Programs .....	23
• Impact of Mathematics Programs.....	25

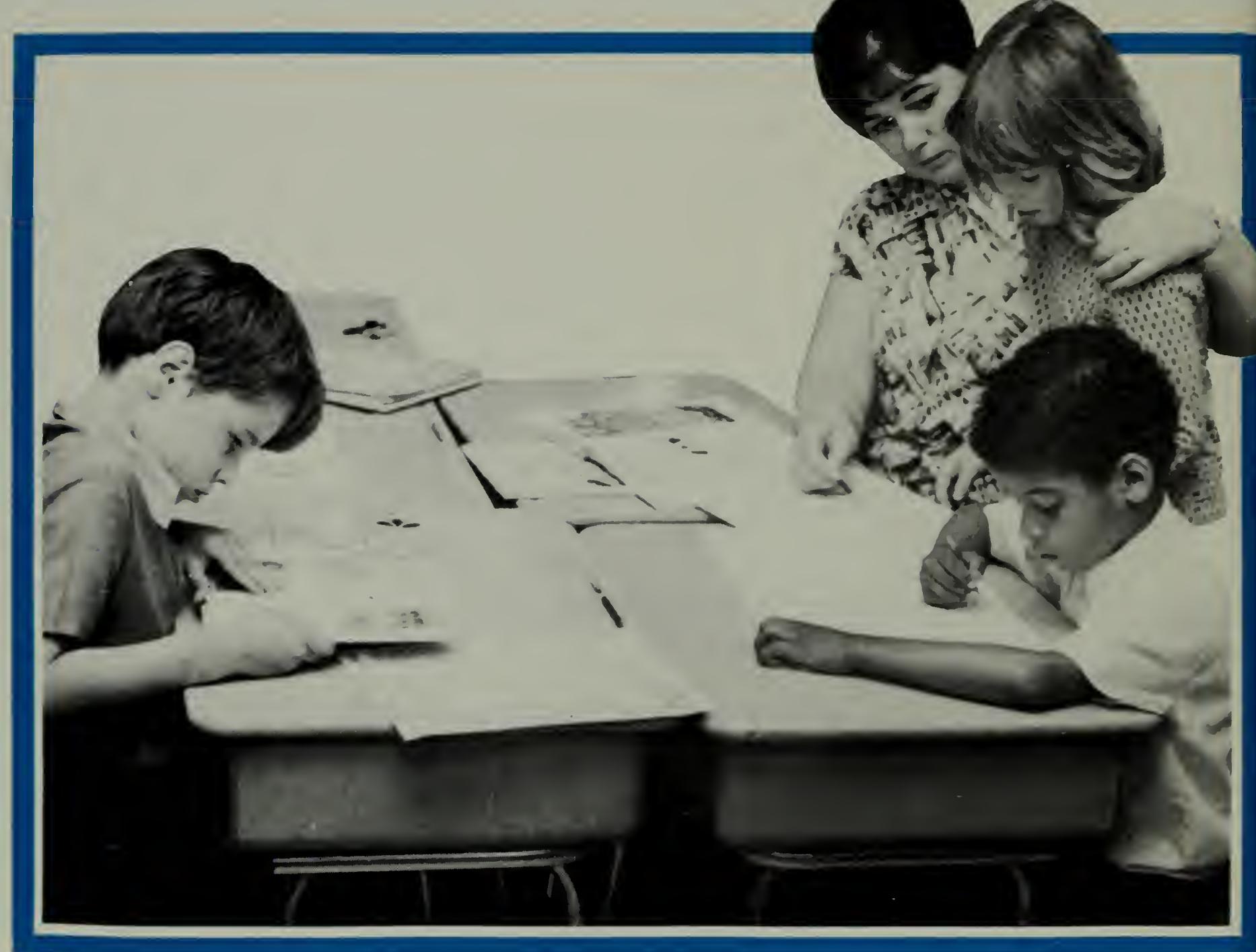
## GOVERNMENT DOCUMENTS COLLECTION

AUG 5 1981

ESEA: TITLE I -

University of Massachusetts  
Depository Copy

► FISCAL YEAR 1979



## LIST OF TABLES

<u>Table</u>	<u>Subject</u>	<u>Page</u>
I. Number and Type of Local Educational Agencies with Title I Programs .....	1	
II. Allocation of Title I Funds .....	2	
III. Unduplicated Count of Public and Non-Public Students Combined .....	3	
IV. Unduplicated Count of Students Enrolled in Public Schools .....	5	
V. Unduplicated Count of Students Enrolled in Non-Public Schools .....	5	
VI. Major Activity Areas Offered by Title I Projects .....	6	
VII. Types of Staff in Title I Projects (Salaried & Non-Salaried Combined) .....	7	
VIII. Non-Public School Student Participation: Time Project Participation Began .....	12	
IX. Non-Public School Student Participation: Time of Day Project Began .....	12	
X. Participation in Title I Projects of Non-Public School Representatives .....	13	
XI. Projects Operating Staff Training Programs .....	14	
XII. Types of Staff Provided Training .....	15	
XIII. Time of Staff Training .....	15	
XIV. Personnel Conducting Staff Training .....	17	
XV. Major Topics of the Title I Staff Training Programs: Professional Staff .....	18	

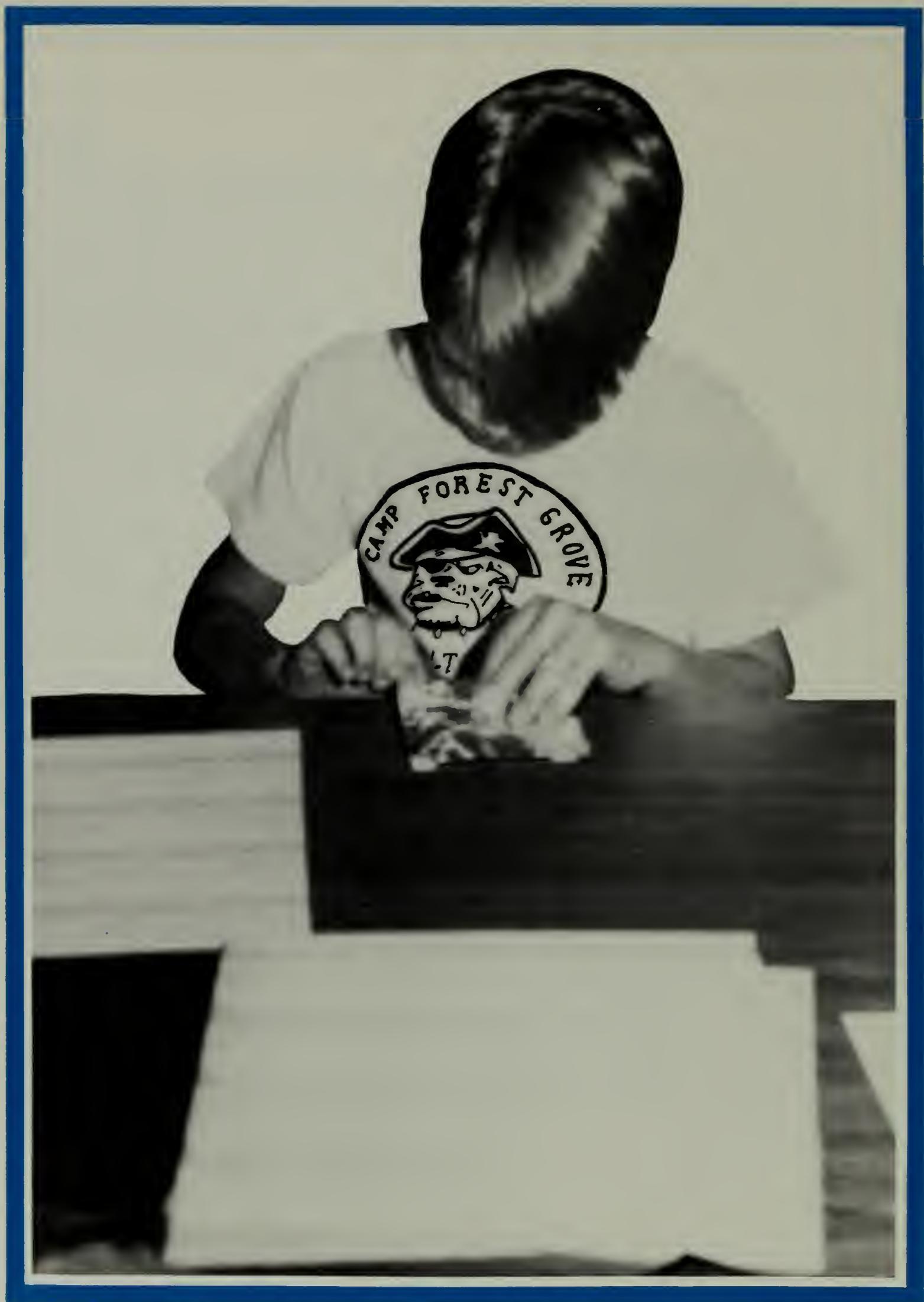
## LIST OF TABLES (*continued*)

<u>Table</u>	<u>Subject</u>	<u>Page</u>
<b>XVI.</b> Major Topics of the Title I Staff Training Programs: Teacher Aides and Non-Professional Staff.....		18
<b>XVII.</b> Non-Voting Membership of Title I Parent Advisory Councils .....		19
<b>XVIII.</b> Number of Students with Pre-test and Post-test Achievement Test Scores in School Year, Grades 2-12 for Each Subject Area and Testing Schedule During Fiscal Years 1978 and 1979 .....		22
<b>XIX.</b> Reading Achievement Results for School Year Projects with Fall-to-Spring Testing Schedules—Expressed in Normal Curve Equivalent (NCE) Scores .....		23
<b>XX.</b> Reading Achievement Results for School Year Projects with Year-to-Year Testing Schedules—Expressed in Normal Curve Equivalent (NCE) Scores .....		24
<b>XXI.</b> Mathematics Achievement Results for School Year Projects with Fall-to-Spring Testing Schedules—Expressed in Normal Curve Equivalent (NCE) Scores .....		25
<b>XXII.</b> Mathematics Achievement Results for School Year Projects with Year-to-Year Testing Schedules—Expressed in Normal Curve Equivalent (NCE) Scores .....		26

## LIST OF FIGURES

---

<u>Figure</u>	<u>Subject</u>	<u>Page</u>
1.	Unduplicated Count of Participating Children by Selected Grade Level Categories (Public & Non-Public Students Combined) .....	4
2.	Salary Status of Title I Staff .....	8
3.	Types of Staff (Salaried & Non-Salaried Combined) .....	8
4.	Non-Public School Student Participation: Extent of Involvement.....	10
5.	Non-Public School Student Participation: According to Project Location .....	11
6.	Hours of Training Received by Title I Staff Members .....	16



# MASSACHUSETTS TITLE I BASIC STATISTICS

## PARTICIPATION OF MASSACHUSETTS LOCAL EDUCATIONAL AGENCIES IN TITLE I

TABLE I

NUMBER AND TYPE OF LOCAL EDUCATIONAL AGENCIES WITH TITLE I PROGRAMS

	Local	Regional	Vocational- Technical	TOTAL
Total Number of LEAs In Massachusetts	296	52	29	377
Number of LEAs Which Did Not Operate Title I Programs	6	23	16	45
► TOTAL Number of LEAs Which Operated Title I Programs	290	29	13	332

TABLE I shows the number of Massachusetts school districts which conducted Title I programs in Fiscal Year 1979 (FY79). Nearly every eligible local school district utilized their Title I entitlement, while only 23 of the regional school districts and only 16 of the vocational-technical schools chose not to operate a Title I program. Therefore, of the 377 school districts, 332 (88.1%) had Title I programs.

The actual number of Title I programs operating in FY79 was less than 332. This occurred because 69 school districts participated in 18 cooperative Title I programs. Thus, there were 281 (332-69+18) actual Title I programs in Massachusetts during FY79.

## ALLOCATIONS BY COUNTY

Allocation to each county (excluding homes and institutions for the neglected and delinquent) is based on the number of low-income children, ages 5-17, in the county. Approximately one-fourth of the state's total grant was earmarked for Suffolk County—Boston, Chelsea, Revere and Winthrop. In addition, 17% of the statewide allocation was targeted for Middlesex County. This county includes Cambridge, Everett, Lowell, Malden and Somerville. TABLE II shows the allocation of Title I funds by county.

**TABLE II**  
**ALLOCATION OF TITLE I FUNDS**

County	Allocation
Barnstable.....	\$ 1,025,686
Berkshire.....	1,093,096
Bristol.....	4,460,589
Dukes.....	31,917
Essex.....	4,759,860
Franklin.....	377,864
Hampden.....	4,582,425
Hampshire.....	624,969
Middlesex.....	7,940,651
Nantucket.....	38,438
Norfolk.....	2,475,168
Plymouth.....	2,638,876
Suffolk.....	11,377,128
Worcester.....	4,771,530
<b>►TOTAL</b>	
<b>\$46,198,197</b>	

## STUDENT PARTICIPATION

The number of students served within Title I programs in both public and non-public schools is shown in TABLE III. Overwhelmingly, the largest number of students were in grades 1-6. These grades accounted for 54,028 (73.7%) of the total Title I student population. Pre-kindergarten and kindergarten programs accounted for 6,995 students—9.5% of the total population. It is interesting to note that 12,101 students (16.5%) were in secondary level Title I programs (grades 7-12).

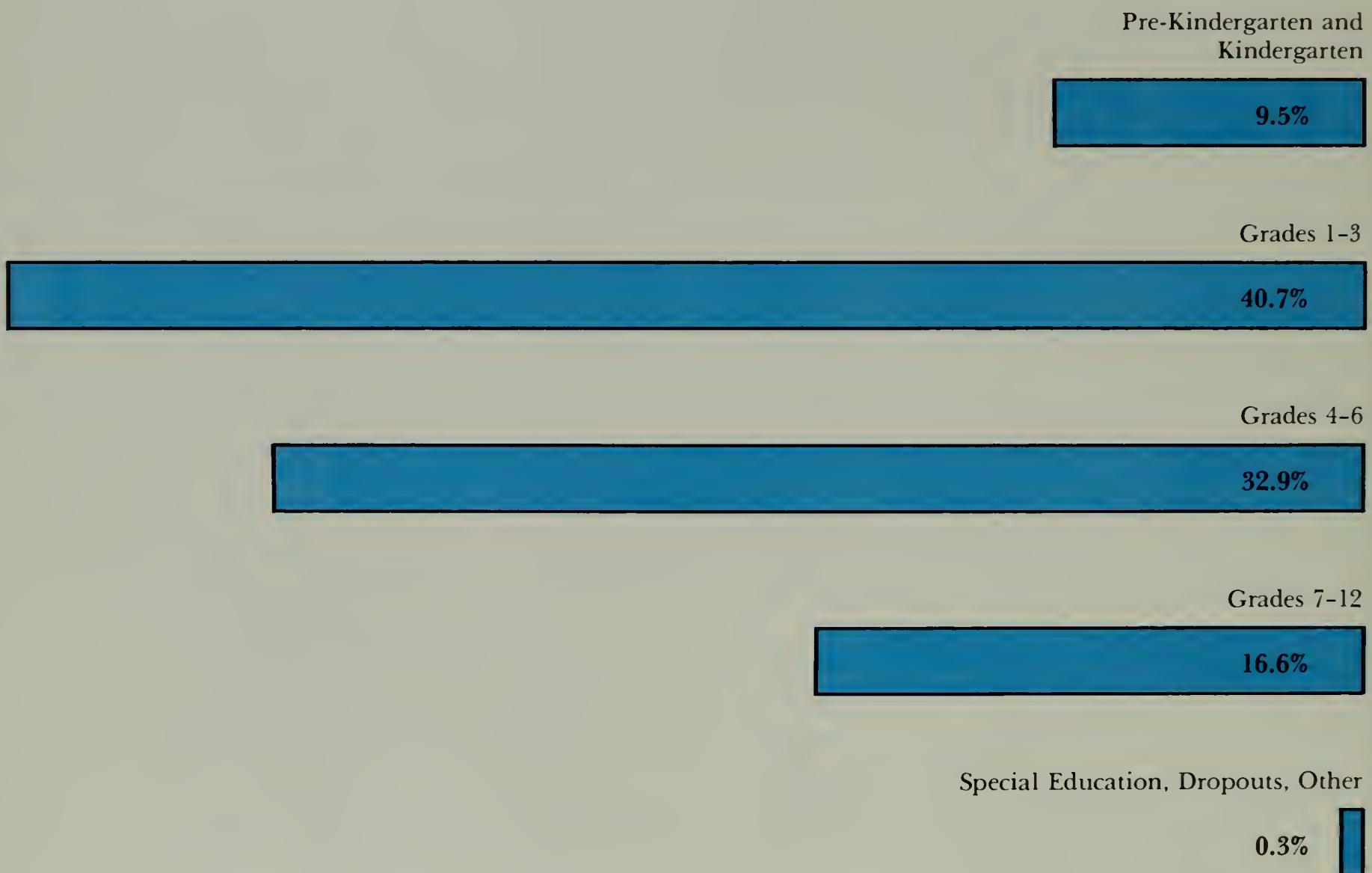
When one compares this figure to last fiscal year (FY78), this figure represents an increase of 4,344 Title I students being served at the secondary level. Apparently, local Title I programs throughout the Commonwealth have implemented Commissioner Gregory R. Anrig's recommendation to increase the number of students served at the secondary level. (Gregory R. Anrig is the Commissioner of Education for the Commonwealth of Massachusetts.)

**TABLE III**  
**UNDUPLICATED COUNT OF PUBLIC AND NON-PUBLIC STUDENTS COMBINED**

	Number	Percentage	Cumulative Percentage
Pre-Kindergarten	1,615	2.20	2.20
Kindergarten	5,380	7.30	9.50
Grades: 1	9,924	13.50	23.00
2	10,052	13.70	36.70
3	9,918	13.50	50.20
4	9,156	12.50	62.70
5	8,642	11.80	74.50
6	6,336	8.60	83.10
7	4,439	6.10	89.20
8	3,565	4.90	94.10
9	2,065	2.80	96.90
10	1,289	1.80	98.70
11	624	0.80	99.50
12	119	0.20	99.70
Special Education	69	0.09	99.79
Dropouts	51	0.07	99.86
Others	104	0.14	100.00
<b>► TOTALS</b>	<b>73,348</b>	<b>100.00</b>	<b>100.00</b>

FIGURE 1 shows that 40.7% of the Title I population were in grades 1-3, 32.9% in grades 4-6, and 16.6% in grades 7-12. It is apparent that the vast majority of the students participating in Title I were in grades 1-6. However, when compared to previous years' evaluation data, there was a sizable increase in the percentage of secondary level students being served.

**FIGURE 1**  
**UNDUPLICATED COUNT OF PARTICIPATING CHILDREN**  
**BY SELECTED GRADE LEVEL CATEGORIES\***  
**(PUBLIC AND NON-PUBLIC STUDENTS COMBINED)**



\*Students who participated in more than one project component in an LEA are counted only *once*.

The number of students participating within public and non-public schools are presented in TABLES IV and V respectively. Within public school programs, nearly 82.8% of the students served were in pre-kindergarten through the sixth grade. Within non-public Title I programs, 84.4%

of the students were served at these same elementary grade levels. Overall, 90% of the total number of Title I students were served in the public schools and the remaining 10% within non-public schools.

**TABLE IV**  
**UNDUPLICATED COUNT OF STUDENTS ENROLLED IN PUBLIC SCHOOLS**

	<b>Number</b>	<b>Percentage</b>	<b>Cumulative Percentage</b>
Pre-Kindergarten	1,539	2.30	2.30
Kindergarten	5,140	7.80	10.10
Grades: 1	8,789	13.30	23.40
2	8,976	13.60	37.00
3	8,794	13.30	50.30
4	8,132	12.30	62.60
5	7,614	11.50	74.10
6	5,720	8.70	82.80
7	3,990	6.00	88.80
8	3,154	4.80	93.60
9	2,000	3.00	96.60
10	1,239	1.80	98.40
11	574	0.80	99.20
12	375	0.54	99.74
Special Education	69	0.10	99.84
Dropouts	51	0.07	99.91
Others	63	0.09	100.00
<b>► TOTALS</b>	<b>66,219</b>	<b>100.00</b>	<b>100.00</b>

**TABLE V**  
**UNDUPLICATED COUNT OF STUDENTS ENROLLED IN NON-PUBLIC SCHOOLS**

	<b>Number</b>	<b>Percentage</b>	<b>Cumulative Percentage</b>
	76	1.00	1.00
	240	3.20	4.20
	1,135	15.20	19.40
	1,076	14.40	33.80
	1,124	15.00	48.80
	1,024	13.70	62.50
	1,028	13.70	76.20
	616	8.20	84.40
	449	6.00	90.40
	411	5.50	95.90
	65	0.80	96.70
	50	0.70	97.40
	50	0.70	98.10
	50	0.70	98.80
	50	0.70	99.50
	0	0.00	99.50
	41	0.50	100.00
<b>► TOTALS</b>	<b>7,485</b>	<b>100.00</b>	<b>100.00</b>

## STUDENT PROJECT ACTIVITY AREAS

The number of students served within each of 16 major activity areas are shown in TABLE VI. Overwhelmingly, reading was the most prevalent Title I program activity (79.6%), followed by mathematics (29.6%) and "other language arts" programs (12.6%). In addition, more than 3,000 students were served by programs which included cultural enrichment, social and emotional development, and "other" instructional activities.

**TABLE VI**  
**MAJOR ACTIVITY AREAS OFFERED**  
**BY TITLE I PROJECTS**

Project Activity Area	Total No. of Students Involved	Percent of Students Served In Each Area
Reading	58,354	79.60
Mathematics	21,692	29.60
Other Language Arts	9,241	12.60
Others	8,967	12.20
Social and Emotional Development	4,674	6.40
Cultural Enrichment	3,965	5.40
English as a Second Language	1,837	2.50
Diagnosis of Learning or Emotional Problems	1,790	2.40
Physical Education or Recreation	1,673	2.30
Food or Clothing Services	1,215	1.70
Crafts, Art, Music or Dramatics	971	1.30
Speech and Hearing	904	1.20
Other Academic Areas	385	0.50
Science	333	0.50
Social Studies	88	0.10
Industrial Arts	10	0.01
► Duplicated Count <b>TOTAL</b>		<b>116,099</b>
► *Unduplicated Count <b>TOTAL</b>		<b>73,348</b>

\*Taken from TABLE III

## TYPES OF STAFF

TABLE VII shows the number and percentage of staff employed in full- and part-time positions in Title I programs. The salaried and non-salaried personnel are combined in this table. Among the full-time staff, more than 44.6% were teacher aides and 29.1% were categorized as elementary teachers. For the part-time staff, 31.6% were teacher aides and 24.7% were elementary teachers. Only 4.1% of the Title I staff were supervisors and program administrators.

**TABLE VII**  
**TYPES OF STAFF IN TITLE I PROJECTS**  
**(SALARIED AND NON-SALARIED COMBINED)**

Staff	Full-Time		Part-Time		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Pre-Kindergarten Teachers	48	1.5	13	1.0	61	1.2
Kindergarten Teachers	101	2.5	20	1.6	121	2.3
Elementary Teachers	1,169	29.1	317	24.7	1,486	28.0
Secondary Teachers	252	6.3	58	4.5	310	5.9
Special Education Teachers	28	0.7	10	0.8	38	0.7
Reading Specialists	197	4.9	54	4.2	251	4.7
Speech Therapists	17	0.4	14	1.1	31	0.6
Librarians	7	0.2	16	1.2	23	0.4
Supervisors and Administrators	114	2.8	105	8.2	219	4.1
Counselors and Psychologists	84	2.1	31	2.4	115	2.2
Attendance and Social Workers	42	1.1	5	0.4	47	0.9
Physicians and Nurses	20	0.5	9	0.7	29	0.5
Teacher Aides	1,792	44.6	406	31.6	2,198	41.5
Library Aides	13	0.3	23	1.8	36	0.7
Others	133	3.3	203	15.8	336	6.3
<b>TOTALS</b>	<b>4,017</b>	<b>100.0</b>	<b>1,284</b>	<b>100.0</b>	<b>5,301</b>	<b>100.0</b>

The salary status of the Title I staff is depicted in FIGURE 2. Nearly all the full-time staff (97.8%) were salaried and 80% of the part-time staff were salaried. When one combines the full- and part-time staff, more than 93% of the staff were salaried and only 6.8% were non-salaried.

**FIGURE 2**  
SALARY STATUS OF TITLE I STAFF

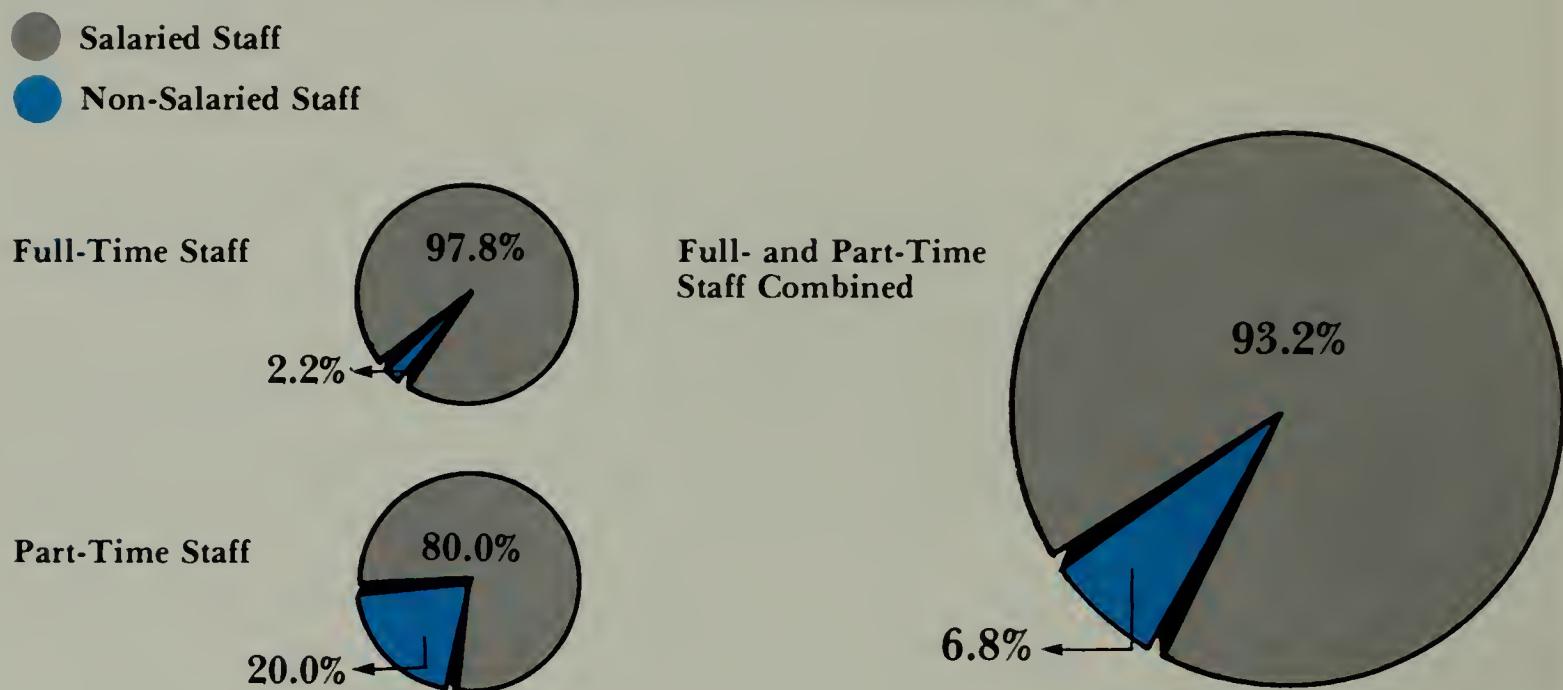
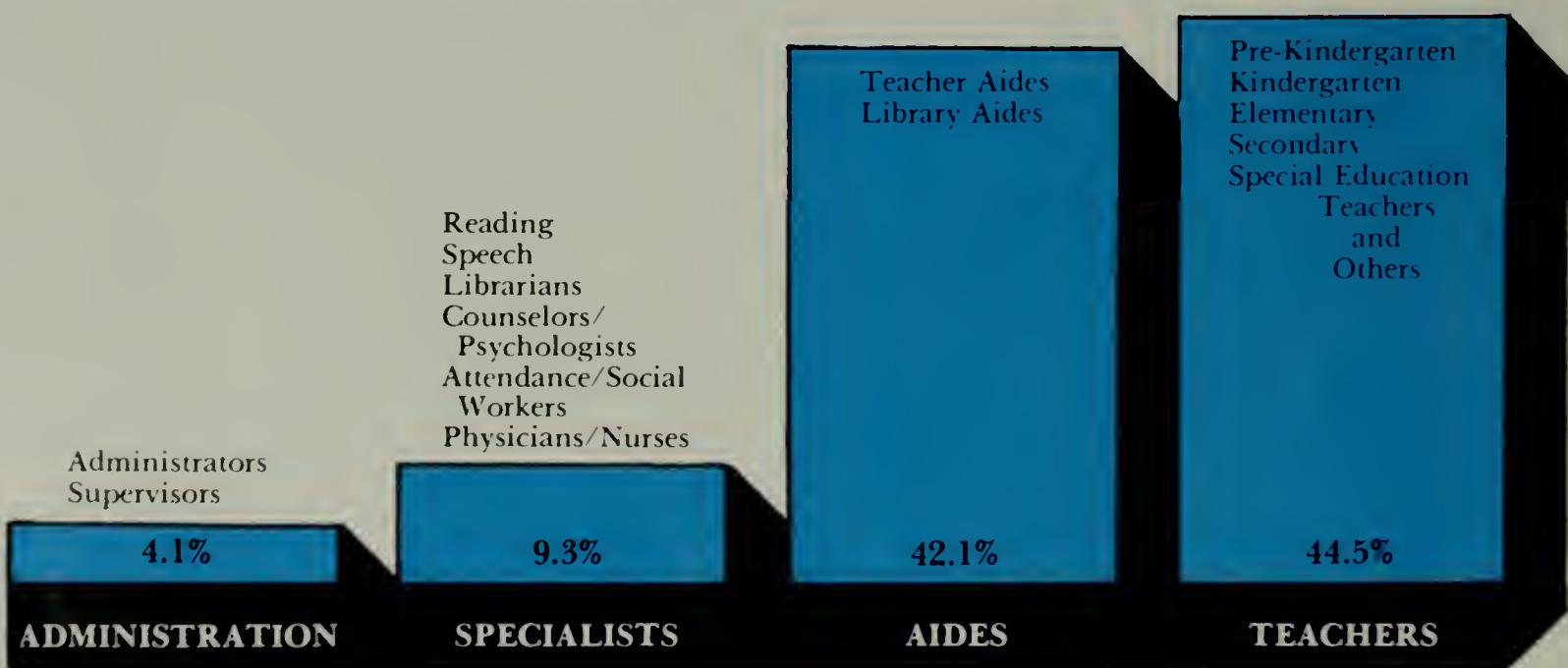


FIGURE 3 illustrates the types of staff involved in Title I programs when both salaried and non-salaried positions are combined. Teachers—including pre-kindergarten, kindergarten, elementary, secondary, special education and other—composed 44.5% of the total staff, and teacher and library aides represented 42.1% of the population. In addition, 9.3% of the staff were categorized as specialists.

**FIGURE 3**  
TYPES OF STAFF  
(SALARIED AND NON-SALARIED COMBINED)



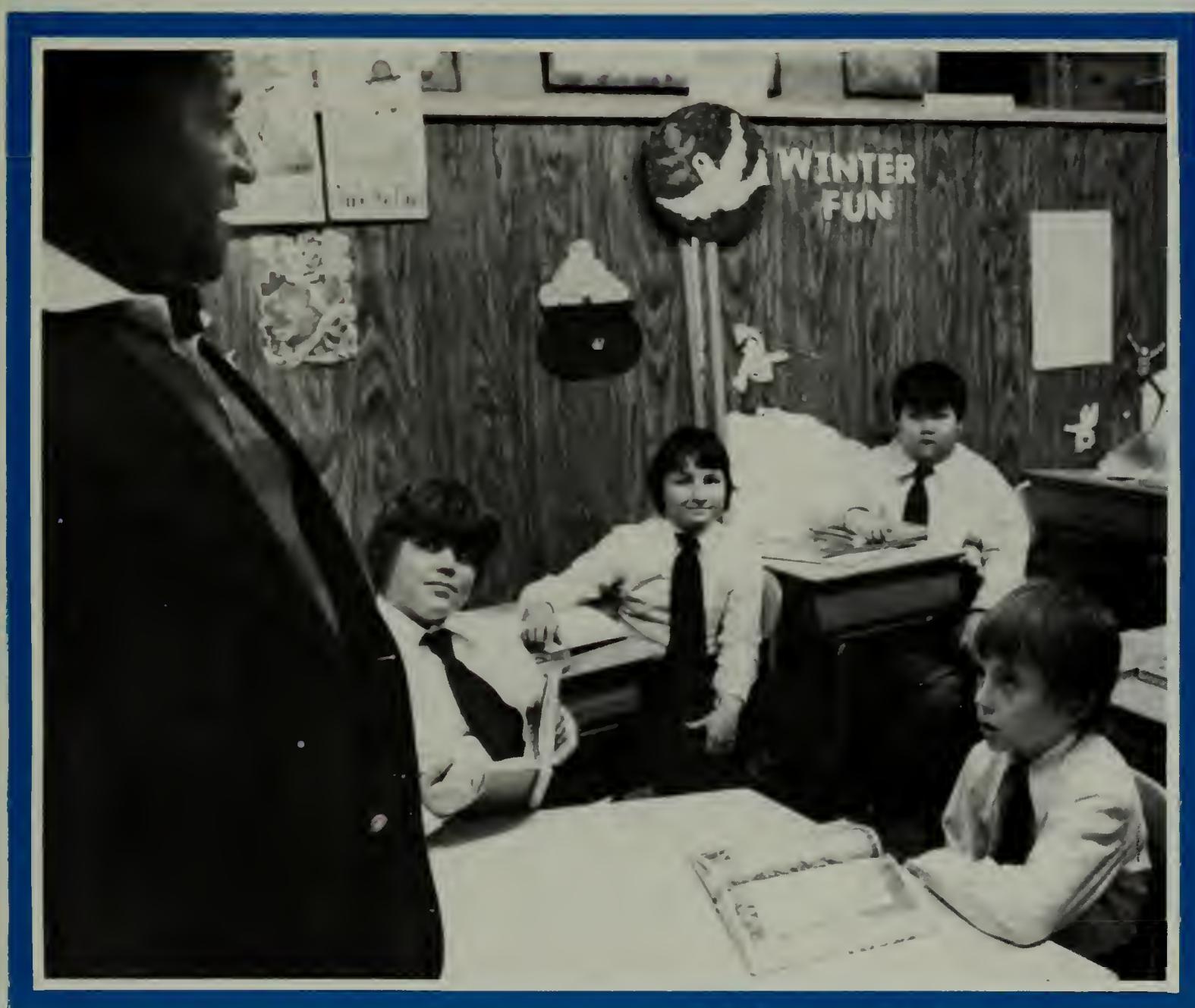
# NON-PUBLIC SCHOOL PARTICIPATION

## REGULATIONS FOR NON-PUBLIC SCHOOL PARTICIPATION

Section 130 of the Title I regulations outlines the requirements for serving non-public school students. It states, "To the extent consistent with the number of educationally deprived children in the school district of the local educational agency who are enrolled in private elementary and secondary schools, such agency shall make provision for including special educational services and arrangements... Expenditures for educational services and arrangements pursuant to this section for educationally deprived children (taking into account the number of children to be served and the special educational needs of such children) to

expenditures for children enrolled in the public schools of the educational agency."

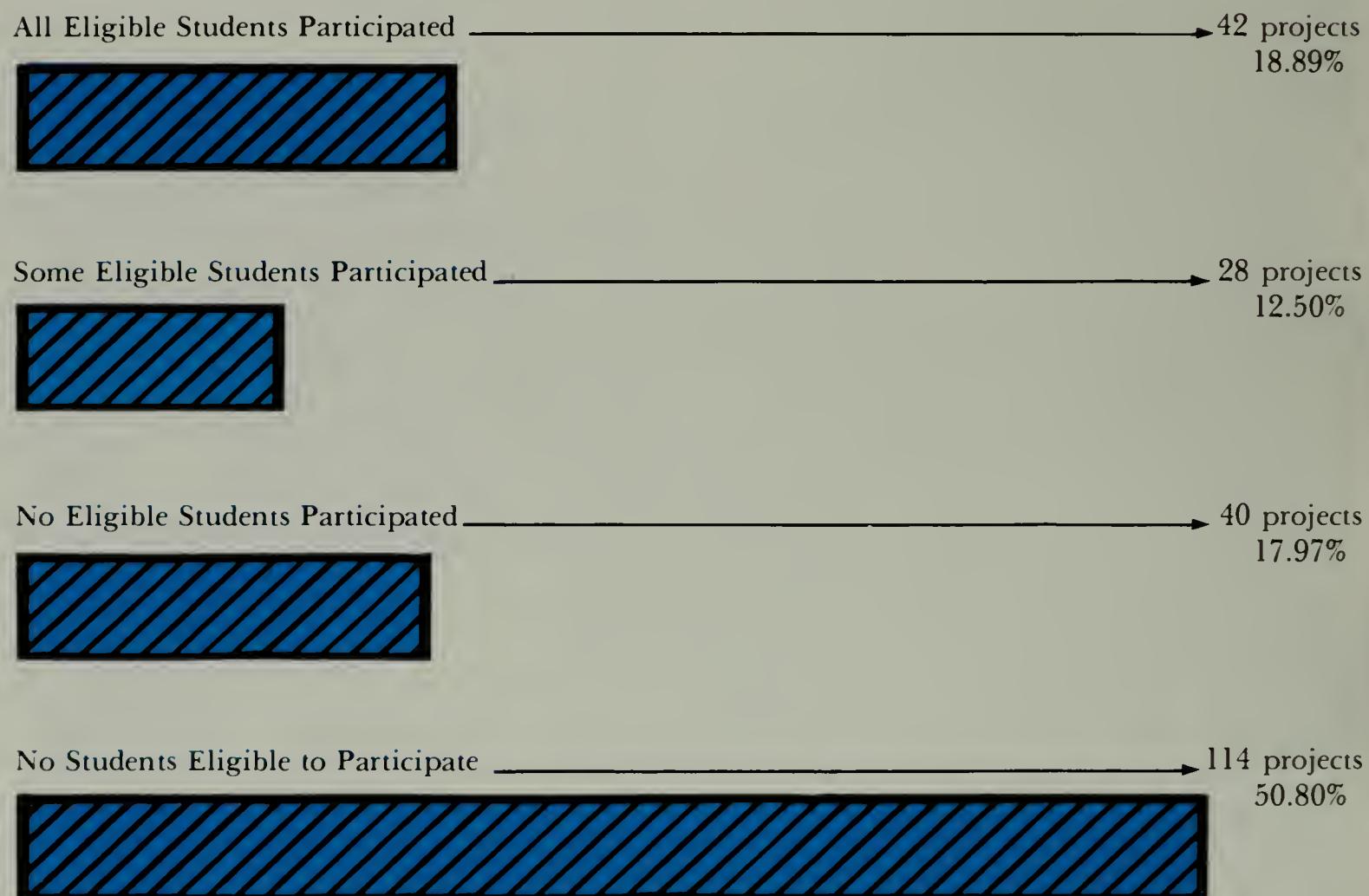
The following data concerns the participation of non-public school children in Title I programs. It is based upon several different questions which were included in the Massachusetts Title I evaluation questionnaire (commonly referred to as Parts I and II). The number of responses to each question varied; therefore, the totals vary from one table to the next. Hence, the reader should focus on the percentages presented, rather than actual frequencies.



## NON-PUBLIC SCHOOL STUDENT PARTICIPATION

The number and percentage of programs serving non-public students is presented in FIGURE 4. Forty-two (18.8%) of the 224 programs reporting indicated that they served all eligible non-public school students. One hundred fourteen programs (50.8%) reported there were no eligible non-public school students in their school districts.

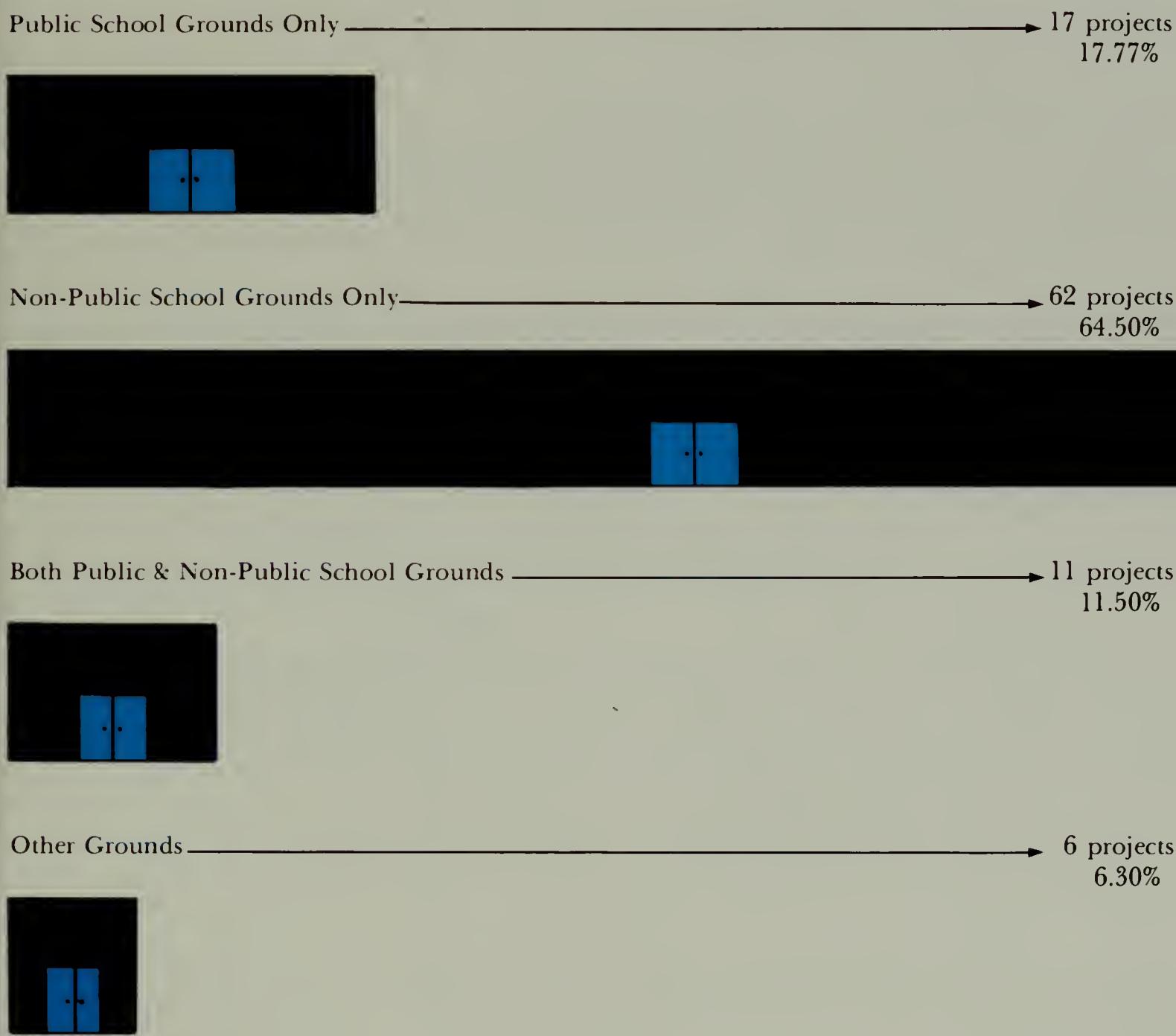
**FIGURE 4**  
**NON-PUBLIC SCHOOL STUDENT PARTICIPATION**  
**EXTENT OF INVOLVEMENT\***



\*Based on 224 projects reporting

The locations of Title I services for non-public school students are designated in **FIGURE 5**. Nearly two-thirds (N = 62) of the 96 Title I programs reporting indicated they operated their programs in non-public schools, whereas 17 programs stated that their students went to public schools to receive Title I compensatory services.

**FIGURE 5**  
**NON-PUBLIC SCHOOL STUDENT PARTICIPATION**  
**ACCORDING TO PROJECT LOCATION\***



\*Based on 96 projects reporting

Of the 76 Title I programs reporting, 73 (96.1%) reported that non-public students participated in Title I programs for the same time periods as did the public school students. Three programs (3.9%) stated their non-public school students were served near the beginning, or slightly later than the public school students. (See TABLE VIII.)

**TABLE VIII**  
**NON-PUBLIC SCHOOL STUDENT PARTICIPATION:**  
**TIME PROJECT PARTICIPATION BEGAN**

	Number of Projects	Percentage
At the beginning of the project (same time as the public school children)	73	96.1
Near the beginning of the project (later than the public school children)	3	3.9
<b>►TOTAL</b>	<b>76</b>	<b>100.0</b>

Eighty-two projects reported non-public school student participation according to the time of day they began. Seventy-three (89.0%) noted that non-public school activities took place during the regular or summer school day. Only 2 (2.5%) reported that project activities took place after or before the regular or summer school day, and 6 (7.3%) took place at "other" times. (See TABLE IX.)

**TABLE IX**  
**NON-PUBLIC SCHOOL STUDENT PARTICIPATION:**  
**TIME OF DAY PROJECTS BEGAN**

	Number of Projects	Percentage
During the regular or summer school day	73	89.0
After the regular or summer school day	2	2.5
Before the regular or summer school day	1	1.2
On weekends	0	0.0
Other	6	7.3
<b>►TOTAL</b>	<b>82</b>	<b>100.0</b>

## **INVOLVEMENT OF NON-PUBLIC SCHOOL REPRESENTATIVES**

The type of activities that non-public school representatives participated in the Title I program is described in TABLE X. Seventy-one programs reported that non-public school representatives were directly involved in planning the Title I program's design, 54 programs reported that non-public school representatives were involved in the program's evaluation and 42

programs stated they were involved in the planning of curriculum and materials. It should be noted that the total count of projects is 278, a duplicated count (the non-duplicated count is 224); this means several programs reported that their non-public school staff were involved in more than one type of activity.

---

**TABLE X**  
**PARTICIPATION IN TITLE I PROJECTS**  
**OF NON-PUBLIC SCHOOL REPRESENTATIVES**

---

Type of Activity	Number of Projects Involved
Planning Project Design	71
Evaluation	54
Planning Curriculum and Materials	42
Project Instruction and Services	35
Staff Training	29
Other	47
<b>►TOTAL (Duplicated Count)</b>	<b>278</b>

---

# STAFF TRAINING

## FUNDING OF TRAINING PROGRAMS

Two hundred and thirty-three programs indicated on their State Title I evaluation questionnaire that they conducted staff training. Of these programs, TABLE XI shows that 84 programs (36.0%) used Title I funds for their staff training, 55 projects (23.6%) noted that they utilized local funds for the training and 50 programs (21.5%) stated they used both Title I and local funds for staff training.

**TABLE XI**  
**PROJECTS OPERATING**  
**STAFF TRAINING PROGRAMS**

	Number of Projects Reporting	Percentage
Title I Funded	84	36.0
Funded by School System	55	23.6
Funded Jointly by Title I and and School System	50	21.5
Other	44	18.9
<b>►TOTAL (Duplicated Count)</b>	<b>233</b>	<b>100.0</b>

## PROFESSIONAL AND NON-PROFESSIONAL STAFF PARTICIPATION

A description of the type of Title I staff who participated in program training sessions is shown in TABLE XII. One hundred and three programs (49.1%) indicated that their programs provided training jointly for their teachers and teacher aides, while 68 programs (32.4%) reported they provided training solely for their teachers and other professional staff. In addition, 13 programs stated they organized their training for teachers and teacher aides separately.

**TABLE XII**  
**TYPES OF STAFF PROVIDED TRAINING**

Types of Staff	Number of Projects Reporting	Percentage
Teachers and Teacher Aides Jointly	103	49.1
Teachers and Professional Staff Only	68	32.4
Teachers and Teacher Aides Separately	13	6.2
Teacher Aides Only	18	8.5
Other	8	3.8
<b>► TOTAL (Duplicated Count)</b>	<b>210</b>	<b>100.0</b>

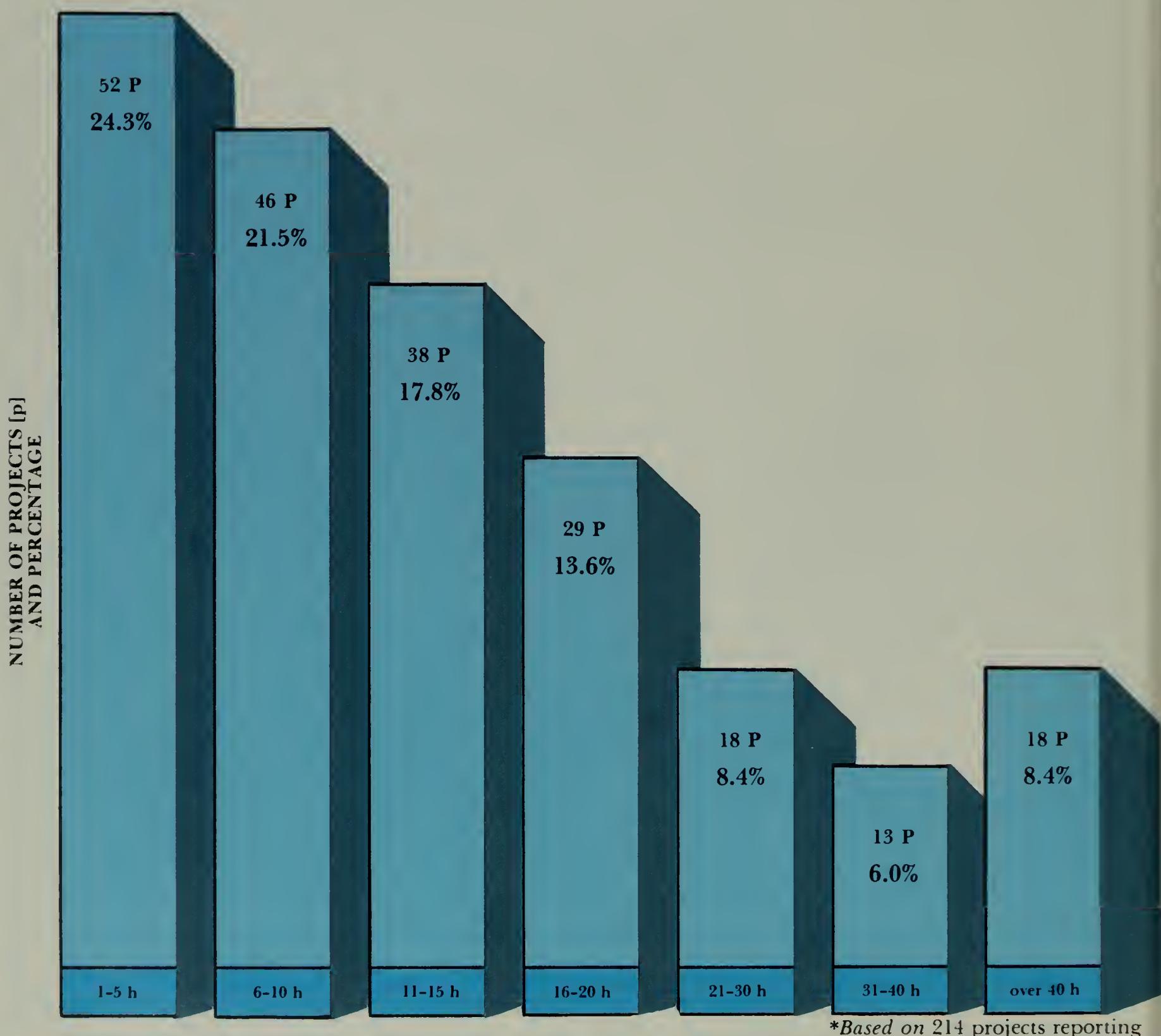
More than 60% (N = 129) of the 213 programs reporting indicated staff training sessions occurred prior to or during the program while 38% (N = 81) indicated staff training was conducted during the program. (See TABLE XIII.)

**TABLE XIII**  
**TIME OF STAFF TRAINING**

Time	Number of Sessions	Percentage
Prior to and During Project	129	60.6
During the Project Only	81	38.0
Prior to Project Only	3	1.4
<b>► TOTAL (Duplicated Count)</b>	<b>213</b>	<b>100.0</b>

The actual number of hours which Title I staff received training is depicted in FIGURE 6. Fifty-two programs (24.3%) indicated they devoted between one and five hours to in-service training, 46 programs (21.5%) reported they spent between six and ten hours and 38 programs (17.8%) indicated training sessions were held for 11-15 hours.

**FIGURE 6**  
**HOURS OF TRAINING RECEIVED BY TITLE I STAFF MEMBERS\***



\*Based on 214 projects reporting

## PERSONNEL CONDUCTING STAFF TRAINING

TABLE XIV shows the personnel primarily responsible for conducting staff training. In 181 programs (84.6%), the local Title I director conducted staff training. Teachers and staff specialists provided training for 129 programs (60.3%) and more than one-third (N = 73) of the Title I programs reporting indicated specialists from colleges and universities were the individuals conducting staff training.

**TABLE XIV**  
**PERSONNEL CONDUCTING STAFF TRAINING**

Types of Personnel	Number of Projects	Percentage
Project Director	181	84.6
Local Teachers and Staff Specialists	129	60.3
Specialists from Colleges and Universities	73	34.1
Specialists from Industry and/or the Arts	22	10.3
Specialists in Medical and Psychological Services	26	12.2
Others	32	15.0

\*Based on 214 projects reporting

## TOPICS COVERED IN TRAINING PROGRAM

The major topics of Title I staff training are depicted in TABLES XV and XVI; the former shows staff training for the professional staff while the latter describes staff training for teacher aides and non-professional staff. For both professional and non-professional staff, orientation to the Title I project was the most prevalent staff training topic. Use of equipment and materials was the next most popular staff training program for both groups.

Besides the similarities of the two groups' training, over 80 Title I programs indicated their professional staff received training on the effective use and duties of teacher aides and the development of curriculum and teaching materials. For the teacher aides and non-professional staff, over 100 programs reported they conducted staff training on development of curriculum and teaching materials, measurement, evaluation and reporting, and project planning and design.

### MAJOR TOPICS OF TITLE I STAFF TRAINING PROGRAMS\*

Topics	TABLE XV PROFESSIONAL STAFF		TABLE XVI TEACHER AIDES AND NON-PROFESSIONAL STAFF	
	Number of Projects	Percentage	Number of Projects	Percentage
Orientation to Title I Project	132	61.7	180	84.1
Use of equipment and materials	109	50.9	122	57.0
Use and duties of teacher aides	94	44.0	88	41.1
Subject matter areas	102	47.7	155	72.4
Development of curriculum and teaching materials	88	41.1	161	75.2
Measurement, evaluation, and reporting	77	36.0	152	71.0
Project planning and design	78	36.5	141	65.9
Use of supportive services (counseling, medical, etc.)	43	20.1	72	33.6
Culture and psychology of the educationally disadvantaged	25	11.7	36	16.8
Diagnosis of learning disabilities	30	14.0	65	30.4
Other	12	5.6	14	6.5

\*Based on 214 projects reporting

# COMMUNITY AND PARENT INVOLVEMENT

---

## TITLE I PARENT ADVISORY COUNCILS (PACs)

Over 99% of the 226 projects responding indicated they had active Title I Parent Advisory Councils (PACs) during FY79. One hundred sixty-two projects (87.6%) reported that their PAC had served each Title I school. There were 3,379 active parents involved in citywide PACs during FY79.

## NON-VOTING MEMBERSHIP OF PACs

The composition of the non-voting membership of the PACs is shown in TABLE XVII. One hundred sixty-two public school administrators, 107 public school teachers, and 103 parents of public school children served by Title I made up the majority of non-voting membership. In addition, 21 programs reported that members of the city or town's school committee were also members of their PAC.

---

**TABLE XVII**  
**NON-VOTING MEMBERSHIP OF TITLE I PARENT ADVISORY COUNCILS\***

Types of Members	Number of Projects	Percentage
Public school administrators	160	70.8
Public school teachers	107	47.4
Parents of public school children served by Title I	103	45.6
Parents of public school children not served by Title I	50	22.1
Non-Public school administrators	31	13.7
Parents of non-public school children served by Title I	31	13.7
Parents of non-public school children not served by Title I	10	4.4
Non-Public school teachers	15	6.6
School Committee members	21	9.3
Anti-Poverty Program representatives	14	6.2
Service Club representatives	6	2.7
Students	2	0.9
Other	12	5.3

\*Based on 226 projects reporting

# **EFFECT ON EDUCATIONAL ACHIEVEMENT**

---

## **OVERVIEW: THE TITLE I EVALUATION AND REPORTING SYSTEM**

For the past three years, the Massachusetts Department of Education has been promulgating to local Title I staff throughout the Commonwealth the newly proposed Title I Evaluation and Reporting System (TIERS). The system was devised by the RMC Research Corporation for the United States Department of Education (USDOE) to aggregate uniform Title I achievement test data: first at the local level, then at the state level and finally, at the national level. USDOE will aggregate each state's Title I evaluation report to present a profile of the impact of Title I nationwide. Currently, the TIER System is designed to aggregate achievement test results for Title I students in grades 2-12 in the three basic skills areas: reading, mathematics and language arts. A Title I program is able to utilize one of three basic evaluation designs to measure the impact of the program on their students. The three basic evaluation designs are:

- (1) *MODEL A*: the Norm-Referenced Model
- (2) *MODEL B*: the Comparison Group or Control Group Model
- (3) *MODEL C*: the Special Regression Model

Each of the three models may be used with either a normed-referenced achievement test or a non-normed test. It is also permissible for a Title I program to use an approvable alternative to the three basic evaluation models.

The three evaluation models utilize a common definition of project impact in measuring the effectiveness of a Title I program in improving a student's achievement. The impact attributed to the Title I program is defined as the difference between student performance on a post-test and an estimate of what their performance, on the same test given at the same time, would have been had the student not participated in the Title I program. In brief, the project's overall impact is defined as the post-test performance minus the expected no-project performance.

$$\text{PROJECT IMPACT} = \frac{\text{OBSERVED}}{\text{Post-Project Performance}} - \frac{\text{EXPECTED}}{\text{No-Project Performance}}$$

For all three evaluation models, the observed post-project performance is always the average post-test score of the project's Title I students. The estimated post-test performance without the project, or the expected no-project performance, is derived differently in each of the three designs.

## THE NORM-REFERENCED DESIGN: MODEL A

Throughout FY79, nearly all Title I programs reporting achievement test results in accordance with TIERS have employed the norm-referenced model. In this evaluation design, the expected no-project performance is derived through comparisons with the achievement test publisher's national norms. The average pre-test score for the Title I students is compared to the distribution of scores obtained by the norm group at the same time of the school year. This comparison requires obtaining the percentile rank equivalent of the average pre-test score. It is assumed that the Title I students would have an average post-test score at

the same percentile rank if they had not participated in the project. Thus, the expected no-project performance is the percentile rank of the group's average pre-test score and the observed post-project performance is the percentile rank of the average post-test score. If the percentile rank of the average post-test score is greater than the percentile rank of the average pre-test score, the difference is attributed to the effectiveness of the Title I program. If the difference is zero or negative, the Title I program is said to have no positive impact.

## REPORTING STATEWIDE RESULTS

The statewide analysis of Title I impact was carried out by aggregating the impacts or gains, defined above, across all reporting Title I projects. Since Title I projects vary in terms of instructional subject areas (reading, language arts, or mathematics) and grades (2-12), separate aggregations were performed within these categories. Also, the test administration schedule for pre- and post-testing may influence the type of results a project can expect to achieve. Therefore, separate aggregations were carried out for Title I projects using a year-to-year testing schedule, those using a fall-to-spring schedule, and those using an abbreviated schedule (less than five months).

In order to aggregate program impact across Title I projects, the percentile ranks of the average pre-

and post-test scores for each program were converted to an equal-interval scale, known as the Normal Curve Equivalent (NCE). (The percentile rank is not an equal-interval scale because an increase in an equal number of percentile points at different locations on the scale represents different increases in test performance. Grade equivalent scales are also not equal-interval.) Expressing the impact of each Title I program in NCE units, thus, facilitated the aggregation of results from different programs.

The remainder of this section of the evaluation report presents the aggregated Title I project impact on student achievement in reading, mathematics, and language arts for grades 2 through 12.

## TITLE I IMPACT: ACHIEVEMENT TEST RESULTS

TABLE XVIII shows the number of Title I program participants for whom both pre- and post-test achievement test scores were obtained. The number of participants tested is presented for the three basic skills areas—reading, mathematics, and language arts. In addition, the table indicates the different testing schedules employed to assess program impact and the results for fiscal years 1978 and 1979. Clearly, there was a sizable increase in the number of *usable* achievement test scores submitted to the state. The number of student scores for the fall-to-spring testing schedule increased from FY78 to FY79 by nearly 6,000, and the number of students tested on the year-to-year schedule increased by nearly 600. Conversely, there was a sizable decrease in the number of students tested on an “abbreviated” testing schedule. This is considered a positive statistic.

Overall, the majority of Title I students tested participated in reading programs (28,073 or 69.6%). Of these students, 90.3% were tested on a fall-to-spring schedule. Students in mathematics programs accounted for only 1.8%. Achievement test results for students in language arts programs and in programs using an abbreviated\* testing schedule are not reported due to the small numbers involved.

**TABLE XVIII**  
**NUMBER OF STUDENTS WITH PRE-TEST AND POST-TEST**  
**ACHIEVEMENT TEST SCORES IN SCHOOL YEAR PROJECTS, GRADES 2-12**  
**FOR EACH SUBJECT AREA AND TESTING SCHEDULE**  
**DURING FISCAL YEARS 1978 AND 1979**

Subject Area	Testing Schedule				<b>TOTAL</b>
	<b>Fall-to-Spring</b>	<b>Year-to-Year</b>	<b>Abbreviated*</b>		
Reading	FY79	25,352	2,686	35	28,073
	FY78	22,749	1,835	106	24,690
Mathematics	FY79	10,534	930	70	11,534
	FY78	6,560	713	154	7,427
Language Arts	FY79	684	27	0	711
	FY78	491	0	878	1,369
<b>► TOTAL</b>		<b>36,570</b>	<b>3,643</b>	<b>105</b>	<b>40,318</b>
		<b>29,800</b>	<b>2,548</b>	<b>1,138</b>	<b>33,486</b>

\*Abbreviated testing schedules were shorter than five months between pre- and post-testing.

## IMPACT OF READING PROGRAMS

The aggregated statewide Title I impact for students in reading programs is presented in TABLES XIX and XX. TABLE XIX reports these gains for projects which employed a fall-to-spring testing schedule. Projects with a fall-to-spring testing schedule had an average impact of 8.9 NCEs, while those which used a year-to-year schedule averaged only 4.5 NCEs. For reading projects using a fall-to-spring testing schedule, the largest gains were achieved at elementary grades 2, 3, 4, 5 and 6. For projects utilizing a year-to-year testing schedule (see TABLE XX), the largest gains were at grades 9 and 10; however, these two gains should be adjudged cautiously due to the small number of programs and students involved. In addition, students in grade 2 reading programs using a year-to-year testing schedule demonstrated a nearly 6 NCE gain.

Overall, TABLES XIX and XX show a definite positive impact of the Title I reading instruction at all grade levels—irrespective of the testing schedule employed to assess program effectiveness.

**TABLE XIX**  
**READING ACHIEVEMENT RESULTS FOR SCHOOL YEAR PROJECTS**  
**WITH FALL-TO-SPRING TESTING SCHEDULES—EXPRESSED IN**  
**NORMAL CURVE EQUIVALENT (NCE) SCORES**

Grade	Number of Projects	Number of Students	NCE Pre-test Mean*	NCE Post-test Mean*	NCE Mean Gain*
2	127	5,339	31.4	44.5	13.1
3	124	4,674	31.2	41.9	10.7
4	120	4,351	30.9	38.9	8.0
5	105	4,079	31.6	39.1	7.5
6	97	2,822	33.9	40.6	6.7
7	55	1,409	31.6	37.1	5.5
8	45	1,080	31.4	36.0	4.6
9	25	612	30.4	36.3	5.9
10	20	463	31.1	36.8	5.7
11	11	148	29.5	33.0	3.5
12	11	75	29.8	32.7	3.8
<hr/>					
<b>►TOTAL</b>	<b>740</b>	<b>25,052</b>	<b>31.6</b>	<b>40.5</b>	<b>8.9</b>

\*Weighted Average

**TABLE XX**  
**READING ACHIEVEMENT RESULTS FOR SCHOOL YEAR PROJECTS**  
**WITH YEAR-TO-YEAR TESTING SCHEDULES—EXPRESSED IN**  
**NORMAL CURVE EQUIVALENT (NCE) SCORES**

Grade	Number of Projects	Number of Students	NCE Pre-test Mean*	NCE Post-test Mean*	NCE Mean Gain*
2	17	413	37.4	43.2	5.8
3	19	455	37.4	40.7	3.2
4	16	404	33.6	38.8	5.2
5	17	458	33.0	38.7	5.7
6	12	329	30.3	35.3	5.0
7	6	270	27.3	32.0	4.1
8	7	262	31.0	31.5	0.5
9	3	41	33.1	42.9	9.8
10	2	24	33.0	32.9	9.9
11	0	0	0.0	0.0	0.0
12	0	0	0.0	0.0	0.0
<b>►TOTAL</b>		<b>99</b>	<b>2,656</b>	<b>33.4</b>	<b>37.9</b>
<b>4.5</b>					

*\*Weighted Average*



## IMPACT OF MATHEMATICS PROGRAMS

TABLES XXI and XXII present the aggregated statewide impact of Title I programs providing supplementary mathematics instruction. TABLE XXI shows very impressive NCE gains at all grade levels for programs employing a fall-to-spring testing schedule. The overall NCEs average mean gain was 12.0. The largest NCE gains were achieved in grades 9 and 3 with 21.0 and 14.5 gains respectively. TABLE XXII reports aggregated program impact by grade for programs using a year-to-year testing schedule. As with the reading programs, the impact of these programs in mathematics is considerably below the fall-to-spring testing. The overall impact was, however, a 6.4 NCE gain.

The largest gains for these programs were in grades 10, 8 and 5. In grade 2 the students demonstrated a -0.9 NCE loss. The reason for this decrease is unclear. However, one should note that the average pre-test score for this grade level was considerably higher than the other grades and fairly close to the mean NCE point—50.

**TABLE XXI**  
**MATHEMATICS ACHIEVEMENT RESULTS FOR SCHOOL YEAR PROJECTS**  
**WITH FALL-TO-SPRING TESTING SCHEDULES—EXPRESSED IN**  
**NORMAL CURVE EQUIVALENT (NCE) SCORES**

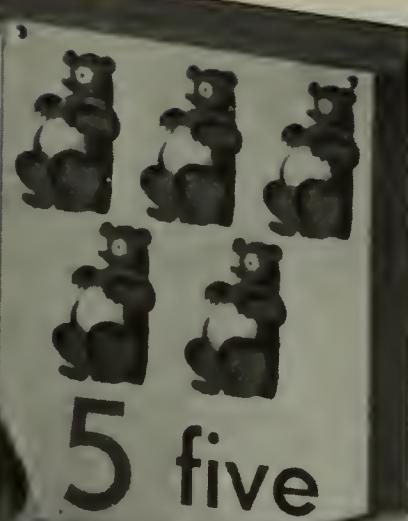
Grade	Number of Projects	Number of Students	NCE Pre-test Mean*	NCE Post-test Mean*	NCE Mean Gain*
2	66	1,962	31.5	41.5	10.0
3	72	2,080	26.6	41.1	14.5
4	73	2,008	31.1	42.2	11.3
5	64	1,594	31.1	43.0	11.7
6	54	1,510	32.7	43.9	11.2
7	22	389	29.2	39.8	10.6
8	20	324	28.6	39.2	10.3
9	14	376	26.3	47.3	21.0
10	10	253	32.7	43.8	11.1
11	4	22	23.5	29.0	5.5
12	3	16	24.3	29.6	5.3
<hr/>					
<b>►TOTAL</b>	<b>402</b>	<b>10,534</b>	<b>30.3</b>	<b>42.3</b>	<b>12.0</b>

\*Weighted Average

**TABLE XXII**  
**MATHEMATICS ACHIEVEMENT RESULTS FOR SCHOOL YEAR PROJECTS**  
**WITH YEAR-TO-YEAR TESTING SCHEDULES—EXPRESSED IN**  
**NORMAL CURVE EQUIVALENT (NCE) SCORES**

Grade	Number of Projects	Number of Students	NCE Pre-test Mean*	NCE Post-test Mean*	NCE Mean Gain*
2	4	162	41.6	40.7	-0.9
3	7	285	37.0	44.1	7.1
4	5	102	35.9	42.0	6.1
5	9	199	33.6	43.7	10.1
6	7	70	32.1	36.3	4.2
7	5	43	30.6	40.5	9.9
8	3	27	27.3	39.7	10.4
9	1	16	23.0	31.5	8.5
10	2	25	27.0	41.0	13.6
11	0	0	0.0	0.0	0.0
12	0	0	0.0	0.0	0.0
<hr/>					
► TOTAL	43	929	35.6	42.0	6.4

\*Weighted Average



5 five

Massachusetts Department of Education  
Bureau of Curriculum Services  
Title I Office  
31 St. James Avenue  
Boston, Massachusetts 02116

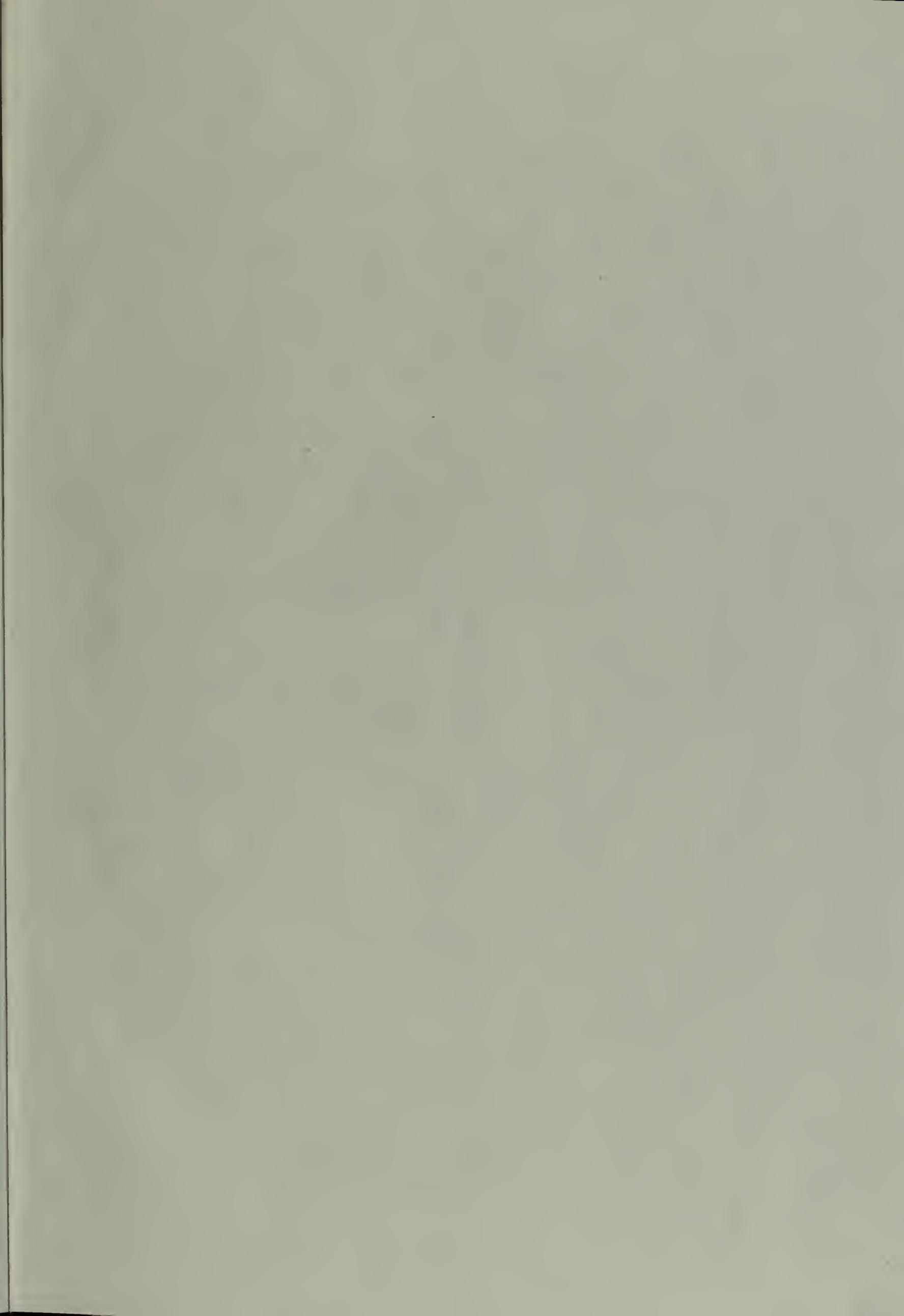
Non-Profit  
U.S POSTAGE  
PAID  
Permit No. 55623  
Boston, Mass.

MAIL TO:

GOVERNMENT DOCUMENTS  
COLLECTION

AUG 5 1981

University of Massachusetts  
Depository Copy



BOOKSELLERS, INC.

SEP 6 1990

100 CAMBRIDGE STREET  
CHARLESTOWN, MASS.

